

From the Andes to the Hindu Kush: Colombian Airpower Lessons for Afghanistan

A Monograph

by

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ABSTRACT

FROM THE ANDES TO THE HINDU KUSH: COLOMBIAN AIRPOWER LESSONS FOR AFGHANISTAN by Major William J. Maher, United States Air Force, fifty-five pages.

Airpower is an asymmetric means for the application of government counterinsurgent force against enemies of the state. The high cost of investment in aircraft and the high technology training of maintainers and aircrew make a viable air force a challenge beyond the reach of many economically struggling countries.

The United States Government has provided aid to regional and global host nations when the national security interests of both the United States and the host nation aligned. Theory and lessons learned from 100 years of airpower against insurgents aided the development of doctrine. Real-world experience in the building of the Colombian Air Force to fight insurgent and terrorist groups provides insight into the aircraft, personnel, financial and time commitments required to enable host nation success.

This monograph compares the provisional plan for the Afghan National Army Air Corps (ANAAC) to theory, doctrine, and the Colombian experience. The plan for the ANAAC is generally on the correct trajectory. Recommendations center on purposeful training and equipping of the ANAAC for an internally focused, counterinsurgency force.

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Introduction

Throughout the history of the United States, there are myriad examples of foreign policy and national security interests pursued and achieved through military persuasion and cooperation.¹ The continuation of this tradition of global influence in pursuit of national security objectives in Afghanistan is no surprise. The cost of these efforts, however, have increased significantly from historic times of a few hundred Marines on a ship to the current deployment and employment of highly trained military professionals wielding and mentoring with costly modern weaponry. One particular United States Government assistance and training effort that reveals useful information for application to the current Afghanistan situation is Colombia.

Modern, conventional air forces are expensive. Millions of gallons of jet fuel, increased maintenance costs and the loss of life and airframes in Afghanistan drain United States blood and treasure. Before 9/11, the United States Air Force rode high on its victory in Desert Storm and focused on large, conventional operations. The USAF maintained an inventory optimized for conventional combat against a high-tech adversary under a nuclear umbrella. Counterinsurgency (COIN) and Foreign Internal Defense remained primarily in the resource-limited domain of the Special Operations Command.

In the battle for the “hearts and minds” of the population, International Security Assistance Force (ISAF) commander General McChrystal has increased Rules of Engagement restrictions on the use of airpower in prosecuting the attack against

¹ Walter R. Mead, *Special Providence: American Foreign Policy and How it Changed the World* (New York: Routledge, 2002), 24-25.

insurgents.² Afghan President Karzai criticizes the International Security Assistance Force (particularly the United States Air Force) when civilian casualties result from airstrikes. President Karzai's legitimacy is at stake in showing he can provide a secure environment for the Afghan population. Collateral damage is always a pressing issue in a COIN fight.

Air Combat Command placed a request for information for vendors to develop a Light Attack/Armed Reconnaissance aircraft (LAAR). In addition, the USAF recently requested pilot volunteers for a 179-day Temporary Duty assignment to train and fly in this type of aircraft in an actual COIN environment. Air Combat Command is attempting to fill a gap in the USAF inventory to provide cost effective ground support to COIN operations in a permissive air environment.

For the immediate future, an Afghanistan able to defend itself with Afghan equipment and personnel along with United States assistance allows a significant reduction in United States military operational costs and risk to personnel (treasure and blood). For the long term, the capability for the United States to provide air power assistance in developing or security-challenged countries contributes toward US national security objectives around the globe.

The United States has already led a successful assistance effort in Colombia. Based on that fact, the question for this research project is:

² General Stanley A. McChrystal, "Eight Imperatives for Success in Afghanistan," *Military Review* June 13, 2009.

Are there lessons from the United States Foreign Internal Defense effort in Colombia that apply to the effort to build the counterinsurgency (COIN) capability of the Afghan National Army Air Corps (ANAAC)?

Methodology

This study investigates doctrine and theory on the application of airpower in Irregular Warfare and focuses on the COIN fight. The study uses United States Foreign Internal Defense efforts to build Colombian Air Force COIN capability. Sources include joint and service doctrine as well as academic theory about the best use of airpower in the Irregular Warfare environment.

Theory and doctrine inform an investigation of United States Foreign Internal Defense efforts in Colombia. The research sources for Colombia rely heavily on personal interviews with an active duty Colombian Army officer as well as two US military officers responsible for the Foreign Internal Defense efforts in Colombia. These interviews center on perspectives for how airpower contributed to fighting insurgents opposed to the legitimate government. In addition, personnel at Air Combat Command were extremely helpful in relating both lessons from Colombia and Afghanistan as the command considers integrating niche COIN airpower capability into the portfolio of USAF combat power.

Following the investigation of theory, doctrine, and the Colombian experience, the author compares these lessons to planned ANAAC capabilities. The sources of information for this portion include a year of discourse at the School of Advanced Military Studies, including exercises with Afghanistan as the focus. The author also collaborated with personnel developing strategy in Afghanistan for the North Atlantic

Treaty Organization Training Mission – Afghanistan (NTM-A)/Combined Security Transition Command – Afghanistan (CSTC-A), Combined Airpower Transition Force (CAPTF).

In the analysis portion, the paper recommends changes to the proposed ANAAC force structure and a focus on personnel development. These recommendations promote the United States' national interests through building partner-nation aviation capability in the near and long-term through thoughtful and determined efforts.

Counterinsurgency, Foreign Internal Defense and Airpower

Counterinsurgency falls within the spectrum of Irregular Warfare (IW). To begin with the broader definition of this type of conflict, the Department of Defense describes IW as:

A violent struggle among state and non-state actors for legitimacy and influence over the relevant population(s). Irregular warfare favors indirect and asymmetric approaches, though it may employ the full range of military and other capacities, in order to erode an adversary's power, influence, and will.³

Counterinsurgency breaks out a specific subset of IW. The definition of insurgency is required before understanding what the counter to that effort entails:

Insurgency: The organized use of subversion and violence by a group or movement that seeks to overthrow or force change of a governing authority. Insurgency can also refer to the group itself.⁴

³ Department of Defense Dictionary of Military Terms. Retrieved March 4, 2010 from: http://www.dtic.mil/doctrine/dod_dictionary/.

⁴ Ibid.

Understanding that insurgents are typically non-state actors, the definition of counterinsurgency (COIN) is the, “Comprehensive civilian and military efforts taken to defeat an insurgency and to address any core grievances.”⁵

When the United States engages in counterinsurgency operations on foreign soil, it does so through a spectrum of Foreign Internal Defense (FID) efforts. The first choice is to aid friendly governments through training, equipment and loans such as in Colombia. The opposite end of the spectrum is Afghanistan. United States combat personnel defeated the ruling government in 2001 and have stayed on to battle the resulting insurgency while simultaneously standing up a viable government. The Department of Defense wraps up this range of Foreign Internal Defense operations with the following definition:

Participation by civilian and military agencies of a government in any of the action programs taken by another government or other designated organization to free and protect its society from subversion, lawlessness, and insurgency.⁶

The United States Department of Defense Joint Staff guides the actions of Foreign Internal Defense through JP 3-07.1. This document cautions about the dangers of kinetic airstrikes causing collateral damage. If airstrikes and asymmetric attacks enable an adversary to gain popular support and stir legitimate government opposition, then air

⁵ Department of Defense Dictionary.

⁶ Ibid.

strikes run the risk of being counterproductive.⁷ In addition, the document addresses the concern of appearances and the perceived legitimacy of the host government.⁸ If the citizens of a country view the military might of an external actor as a means to prop up a troubled government, it creates doubts about the ability of the government to provide security for the long term.

JP 3-07.1 discusses the importance of defining the national interests at stake before committing troops and equipment to the development of the internal defense capability of the host nation.⁹ These long-term interests and goals must drive the planning and procurement processes. Identification of the underlying causes to the unrest or security threat is imperative for countering the problem.¹⁰

JP 3-07.1 defines key Foreign Internal Defense requirements including area and cultural training, language training, and detailed knowledge of the Rules of Engagement to prevent unnecessary criticism of the United States or Host Nation. The document emphasizes the legitimacy of the government and issues of United States personnel engaging in combat on behalf of host nation governments.¹⁴

Building on the joint doctrine foundation, *Air Force Doctrine Document 2-3: Irregular Warfare* addresses specific uses for airpower in Irregular Warfare and includes topics such as COIN operations and Building Partner Capacity (BPC) through Foreign

⁷ Joint Publication 3-07.1: *Joint Tactics, Techniques, and Procedures for Foreign Internal Defense*, (Washington D.C.), April 30, 2004, I-14.

⁸ Ibid., I-14.

⁹ Ibid., II-17.

¹⁰ Ibid., III-1,6.

¹⁴ Ibid., V-29-32.

Internal Defense. The underlying goal in COIN is to establish security for the population through the rule of law.¹⁵ Ordnance delivered through air or land power within the borders of the country is a reminder that security is threatened and the population is at risk. This affects the confidence of the population in the government's ability to provide security. The ability to strike targets and gain the initiative against insurgents, however, validates the requirement for kinetic operations. Careful application of force through airpower limits the casualties of friendly soldiers and police forces.¹⁶ When the United States Department of Defense assists a host nation in a COIN struggle, it utilizes three levels of involvement: indirect support, direct support not involving combat and direct support involving combat.

It is important to plan rotations of personnel and equipment to sustain the long-term effort required in COIN operations.¹⁷ The ability to reframe as the conflict evolves is important to maximize the opportunity for success. Feedback and assessment are critical for the commander and staff for planning purposes. If the efforts do not contribute toward success, an honest assessment and change of operational plan is required to track toward victory. Rotations provide a fresh set of eyes and ideas but must also consider continuity before a wholesale exchange of personnel.

The USAF Foreign Internal Defense operational cycle includes assessing partner nation capabilities, enabling and building those capabilities, operations, redeployment of

¹⁵ United States Air Force. *Air Force Doctrine Document 2-3: Irregular Warfare*, (Maxwell Air Force Base), August 1, 2007, 44.

¹⁶ Ibid., 44.

¹⁷ Ibid., 62.

United States personnel, and sustaining partner nation forces.¹⁸ While this is a typical flow of involvement, the doctrine stresses the complex nature of Irregular Warfare and encourages a non-linear problem solving approach. Realizing that the enemy also understands this typical cycle of United States Government involvement is critical to enabling the stability and success of the partner nation. There may be times of “two steps forward and one step back” as military and political leaders assess the situation.

The United States Air Force doctrine provides a 2007 snapshot in time through both the *Air Force Doctrine Document 2-3: Irregular Warfare* and *2-3.1: Foreign Internal Defense*. Given the change in USAF civilian and military leadership in 2008 and an increased focus on the current Irregular Warfare/COIN/Foreign Internal Defense world, these documents may see substantial revision in the future. The main points of the Irregular Warfare foundational doctrine applicable to the research question of this monograph include: the time factors to prevent conflict and restore stability in Irregular Warfare and the importance of the indirect approach; the importance of legitimacy and influence through the host nation; airpower’s ability to provide flexible and persistent options to Irregular Warfare challenges.¹⁹

Issuing more detail in order to build on the Irregular Warfare theme, Air Force Doctrine Document 2-3.1, *Foreign Internal Defense*, includes the following foundational statements specifically applicable to this monograph: USAF Foreign Internal Defense works primarily through host nation forces to achieve US security objectives; joint

¹⁸ United States Air Force, *Irregular Warfare*, 75.

¹⁹ Ibid., viii.

training and advising is more important than United States military tactical actions; airpower supports the entire range of government efforts in COIN and counter-terrorism; airpower Foreign Internal Defense is more than tactics and includes the entire leadership and logistical train in getting the tip of the airpower spear into the fight.²⁰

The most widely referenced doctrinal document in the COIN fight is Army and Marine Corps Field Manual 3-24. Airpower references are scarce and primarily contained in five pages as Appendix E. The key thoughts for airpower COIN contributions from this document that relate to Colombia FID and the ANAAC are: airpower in COIN is primarily a supporting asset to ground efforts; major tensions exist between avoidance of collateral damage and the denial of enemy sanctuary; intelligence collection and information operations are key enablers.²¹

FM 3-24 also acknowledges the long time required to build host-nation airpower capability. Airpower advisors and trainers will remain long after the host nation army is capable of ground operations. This is because of the increased technical training required to operate and maintain aircraft effectively in a combat environment.

An important source on the theoretical aspects of airpower in Irregular Warfare is Jim Corum and Wray Johnson's *Airpower in Small Wars*. Airpower strategists in Afghanistan regard this work as extremely useful for applying past small war lessons to current plans. The authors cull eleven lessons out of case studies spanning over 100 years. The insightful book provides these key takeaways for this research project: nations

²⁰ United States Air Force, *Irregular Warfare*, vii.

²¹ United States Army, *FM 3-24 Counterinsurgency*. (Washington D.C.), 2006, Appendix E.

that suffer from insecurity and insurgency also often lack a professional military officer corps; logistics and maintenance are as important as tactical and operational training,²² the support role of airpower is usually most important; bombing civilians is not only ineffective but also counterproductive; joint operations are paramount; intelligence is a key enabler; a long-term timeframe and mindset are required.²³

David Galula, in his widely regarded book *Counterinsurgency Warfare: Theory and Practice*, addressed directly and indirectly the contribution of airpower to COIN operations. Many of Galula's recommendations, derived from decades of COIN observation and practice, hold true today. Before Galula recommends the operational plan for victory in COIN, he addresses situations where airpower can contribute. First, airpower provides initiative for friendly forces and can flush the insurgent from cover.²⁴ The asymmetric advantage of airpower aids in taking the initiative from the guerilla. The second topic is the economy of effort for both the insurgent and counterinsurgent. An insurgent has the luxury of economy and efficiency. With relatively few forces and limited operations at a time and place of his own choosing, the insurgent holds large portions of the population at risk. It costs much more for the counterinsurgent to defend and defeat the insurgent. A legitimate government cannot afford to accept by choice a protracted struggle.²⁵ Accordingly, forces and resources should be rapidly deployed to

²² James S. Corum and Wray R. Johnson, *Airpower in Small Wars* (Lawrence: University of Kansas Press, 2003), 372.

²³ Ibid., 425-439.

²⁴ David Galula, *Counter-Insurgency Warfare: Theory and Practice* (Westport, CT: Greenwood Publishing Group, Inc., 1964), 6.

²⁵ Ibid., 12.

maximize effectiveness in the COIN fight.²⁶ Galula specifically recommends a fleet of aircraft centered on, –slow assault fighters, short take-off transport planes, and helicopters.”²⁷ He goes on to say that loiter time, firepower and protection from small-arms fire are also important aircraft characteristics.²⁸

Controlling border areas and contesting insurgent controlled terrain is a mission that airpower contributes toward.²⁹ Jeffrey Record backs up Galula’s emphasis on border control with his extensive study of insurgencies. Porous borders aid the insurgent by providing resources and sanctuary that oppose COIN efforts. —Eternal assistance is a common enabler of victorious insurgent wars...”³⁰

After the background information on the context of guerilla war, Galula discusses the “laws” of COIN. The first three address population support and control, the fourth is “Intensity of Efforts and Vastness of Means Are Essential.”³¹ This concept addresses economy of forces in order to minimize safe havens for insurgents. Airpower can contribute through direct attack on insurgent camps or gatherings of insurgents preparing for battle.³² The COIN military member should use the minimum force required to

²⁶ Galula, *Counter-Insurgency Warfare*, 93.

²⁷ Ibid., 32.

²⁸ Ibid., 93.

²⁹ Ibid., 35-36.

³⁰ Jeffrey Record, *Beating Goliath: Why Insurgencies Win* (Dulles: Potomac Books, Inc., 2007), 133.

³¹ Galula, *Counter-Insurgency Warfare*, 79.

³² Ibid., 81.

accomplish the mission.³³ This mindset is often difficult for a conventionally focused force seeking decisive battle.

The last third of Galula's book lays out an eight-step plan for COIN operations. Airpower contributes to steps one, two, three and eight. The first step is destruction/expulsion of insurgent forces.³⁴ Avoiding the reemergence of the insurgent after the initial victory is a capability airpower contributes toward through patrol, intelligence and kinetic operations. The second step is —deployment of the static unit.”³⁵ The purpose of the static unit is to focus on the population while harassing the insurgent outside of the population centers. The third step is —contact with and control of the population.” The objective is to keep the insurgent from threatening the population. Tactics include forbidden zones and curfews. COIN forces kill violators from the ground or air without question.³⁶ This tactic minimizes the vulnerability of troops on the ground and enables greater geographical coverage with a decreased force protection footprint. A rapid reaction or on call force from the air contributes toward control as well. The eighth step is —suppressing the last guerillas.”³⁷ A tactic proposed is to force the insurgent to move and catch them as they cross —successive nets of counterinsurgent forces.” Airpower aids in forcing the movement of the insurgent by cutting supplies, denying sanctuary, or direct attack.

³³ Galula, *Counter-Insurgency Warfare*, 95.

³⁴ Ibid., 107.

³⁵ Ibid., 110.

³⁶ Ibid., 112, 113.

³⁷ Ibid., 133.

A recent Research and Development Corporation (RAND) study provides the final source of theory on USAF contributions to COIN for the purposes of this monograph.³⁸ This book posits that COIN governments often take air power for granted or overlook it altogether in COIN. It is difficult for traditional, conventional airpower strategists and planners to devise plans for and employ force against insurgent targets.³⁹ COIN strategies often restrict airpower to the supporting role alluded to by Galula and Corum and Johnson. With flexible problem solving skills, however, airpower strategists can fill the gaps in traditional COIN approaches.

The RAND study also proposes that airpower, through strike and surveillance options, prevents the massing of insurgents attempting use of conventional tactics.⁴⁰ Speed and range are characteristics of airpower that enable initiative from the air and allow airpower to act as a ready reserve for ground efforts. In addition, with proper planning, airpower can be overhead for key operations. This eases the burden of equipment and force protection requirements for ground forces.⁴¹

Future recommendations for the USAF from RAND include an increased emphasis on COIN.⁴² The discourse and direction from civilian and military leadership in 2009 and continuing into 2010 indicates this is underway.⁴³ Both Secretary of Defense

³⁸ Alan J. Vick et al. *Air Power in the New Counterinsurgency Era: The Strategic Importance of USAF Advisory and Assistance Missions*. (Santa Monica: RAND Corporation, 2006).

³⁹ Ibid., 109-110.

⁴⁰ Ibid., 113.

⁴¹ Vick et al., *Air Power in the New Counterinsurgency Era*, 114.

⁴² Ibid., 136.

⁴³ Norton Schwartz, "The Air Force's Role in Irregular Warfare" *Brookings Institute* (Washington D.C.: ANDERSON COURT REPORTING, 2009), 1-38.

Robert Gates and Chairman of the Joint Chiefs of Staff Admiral Mullen cite USAF Foreign Internal Defense capability as a key contribution to the security of the United States in the future.⁴⁴ Improving partner nation air power capability is a key to fight insurgencies.⁴⁵ The credibility of the USAF professional relies on a demonstrable COIN capability.⁴⁶ This is where the requirement for proficiency exists in similar aircraft to what partner nations can purchase and maintain. It is easy to look good driving a Corvette, but it takes more skill to achieve the same effect in the economic Impala.

The mentoring of leadership and developing the command and control system of a partner nation air force is even more important than flying and shooting insurgents. For this reason, the RAND study recommends a Wing-Level aviation-advising unit.⁴⁷ The increased rank structure of the wing (O-6 or O-7) and the expertise developed in all aspects of sustaining air operations would transfer to the partner nation. The USAF considered this proposal but for now has not committed to fully resourcing this aspect of FID. Recent recommendations to politicians, however, do recommend the expansion of the 6th Special Operations Squadron, to increase the capability to advise and train partner nation air forces.⁴⁸

⁴⁴ Department of Defense, "Quadrennial Defense Review" Report (Washington D.C.: Department of Defense, 2010), i, 104.

⁴⁵ Vick et al., *Air Power in the New Counterinsurgency Era*, 151.

⁴⁶ Ibid., 146.

⁴⁷ Ibid., 139.

⁴⁸ Robert Martinage, "Special Operations Forces: Challenges and Opportunities." Testimony Before the U.S. House of Representatives House Committee on Armed Services Subcommittee on Terrorism, Unconventional Threats and Capabilities. (Washington D.C.: Center for Strategic and Budgetary Assessments, March 3, 2009), 21.

Summary of Theory and Doctrine for Airpower FID and COIN Efforts

Over 100 years of airpower in COIN provide key insight into fighting those opposed to allied governments. These topics provide a baseline of understanding for assessing how the United States Government assisted in Colombia and what is possible in Afghanistan.

The first major consideration is that COIN is population centric. Security of the population through rule of law and the legitimacy of the government are paramount for success. COIN is inherently a ground centric mission. Airpower, however, provides a significant support to ground forces and the ground commander. Collateral damage negatively affects the credibility of the partner nation in providing security for the population. Cultural awareness is critical to gain the trust and confidence of the population. Economically challenged countries may have a weak professional military officer corps. This provides additional challenges in building military capabilities. In addition, economic weakness affects the type of equipment suitable for long-term sustainment. Logistics, maintenance and training are important considerations before arming a partner-nation.

Definition of national interests is required before commitment of US personnel to Foreign Internal Defense and COIN fights. This assessment identifies resources required and acceptable risk levels for strategy development and operational planning purposes. Political controls of military action are required to prevent inadvertent ignition of sensitive or instable geographical or political areas. Airpower rapidly ranges a country and creates challenges to effective command and control. Plans should include rotations of personnel with continuity considerations for the partner nation. Decisions on logistical

support of the aircraft in parts and upkeep are important considerations. In the short term, security, maintenance facilities, and personnel may require the shipment of aircraft out of theater for upkeep. Maintenance of aircraft in the partner nation, however, allows for hands-on training of partner nation personnel and builds the capacity for long-term sustainability.

COIN fights are inherently complex. Strategy must acknowledge the complexity and allow for adaptability as events emerge. Identification of underlying causes of conflict aids in determining where, when, how and even if the application of airpower is necessary. Measures of Effectiveness (MOE) in complex scenarios are a challenge to define. MOE identify and provide feedback so that adaptations occur quickly to counter insurgent development. Airpower is just one tool in the COIN fight, and the military must support and enable all instruments of power to contribute toward the end goal.

As far as operations and aircraft selection, COIN strike platforms require reliability, ruggedness and the ability to operate from austere basing locations close to the fight. In addition, they require enough loiter time to provide adequate coverage as ground events unfold, precise and devastating firepower, and high survivability from ground missile and gun attack.

Airpower COIN operations with this type of aircraft provide the initiative to the government forces. Joint operations require combined planning and airborne communication, coordination and control capability. The commander must weigh the risk of collateral damage. Denial of sanctuary in rough or remote terrain or through the enforcement of forbidden zones is useful. Control of borders to deny sanctuary and prevent resupply and external support is a significant airpower contribution. Airpower

can prevent insurgents massing for conventional attacks. COIN airpower applied early in the conflict can prevent extended periods of violence. This capability might prevent a protracted war that places the population at risk from insurgent control.

Colombian Air Force (COLAF)

Colombia has matured after decades of internal and cross border violence into a relatively steady political and economic partner in the Western Hemisphere. The struggle was not without cost in lives and money, and conflict remains. The upcoming decision by President Uribe to place the political process and Colombian Constitution above his own personal power and interests is a fork in the road for Colombia. A peaceful transfer of power to a capable, democratically elected successor would be a strong counter-balance to semi-authoritarian neighbors.⁴⁹ The ability for Colombia to progress from tragic conflict to its present state of marginalized violence required political initiative from within Colombia and sustained external support by the United States to mentor, train and equip Colombian police and military agencies.

Plan Colombia was the most recent major driver behind this United States Foreign Internal Defense effort. The Colombian political leadership generated the initiative for the plan. The United States implemented Plan Colombia under the larger umbrella of the Andean Counterdrug Initiative.⁵⁰ The plan initially focused on increasing counter-drug capability to reduce the amount of cocaine entering the United States from Colombia. One result of Plan Colombia is that the Colombian Air Force received resources for

⁴⁹ *The Economist*. After Uribe. March 4, 2010.

⁵⁰ Connie Veillette, *Plan Colombia: A Progress Report*. (Washington D.C.: Congressional Research Service, 2005), 2.

aircraft, fuel and maintenance to continue and increase operations against the Revolutionary Armed Forces of Colombia (FARC).⁵¹ After 9/11, the money, aid and training increased as the counter-drug effort grew to include Global War on Terror (GWOT) considerations.⁵² Colombians widely support the plan. The increased United States Government assistance is a major reason for Colombian political and military gains against the FARC over the past decade.⁵³

Colombian Air Force Aircraft and Resources

In addition to its own investment in internal defense, the Colombian Military has received substantial aid from the United States since the 1960's.⁵⁴ The mix of aircraft procured over the years has vacillated between countering external and internal threats. This procurement cycle has stressed the resources available to maintain and operate the diverse fleet. Recent upgrades to existing equipment and purchases of new aircraft have increased capability overall.

The primary COIN ground attack aircraft are the AH-60 Arpia III (ten dedicated attack), UH-60 Halcon (twelve with door snipers), the AC-47T gunship (seven aircraft remaining) the OA-37 (eight aircraft), and the A-29 Super Tucano (twenty-five aircraft).⁵⁵ The Colombian Army utilizes helicopters for mobility purposes only. These

⁵¹ Interview with Colombian Army Lt Col Juan Correa, 13 November, 2009.

⁵² Veillette, *Plan Colombia*, 18-19.

⁵³ Ibid., 9-10.

⁵⁴ David J. Myers, *Democracy in Latin America: Colombia and Venezuela*. (New York: Praeger, 1988), 288.

⁵⁵ Jane's, "Colombian Air Force," October 12, 2009.
<http://search.janes.com.lumen.cgsccarl.com/Search/documentView.do?docId=/content1/janesdata/sent/sam>

aircraft provide a solid mix of lethality, loiter and survivability for COIN operations.

Unfortunately, much of the Colombian inventory has flown beyond its service life.

Maintainability is a serious issue for Colombia. Colombia has over forty different aircraft types and nearly as many airframes as the United States Air Force.⁵⁶ Colombia must simplify the supply and maintenance requirements to achieve efficiency and sustainability.

Colombian Context

Colombia is a country with a long history of violence among several internal factions with external ties. The struggle between the FARC and the government is over forty years old. The complexity of the interests in government controlled terrain and terrorist challenged locations sparked competing approaches to security with unintended consequences. Wealthy landowners armed groups to counter the FARC, for instance, but these organizations changed into lawless gangs over time. The FARC continues to pose a threat to the population and rule of law in as much as one third of the territory of Colombia, although the government has made great gains in recent years under the determined political leadership of President Uribe. FARC membership is down to between 8,000 and 12,000 from an estimated high of over 40,000 in the late 1990s.⁵⁷

[su/colos120.htm@current&pageSelected=janesReference&keyword=colombianairforce&backPath=http://search.janes.com/lumen.cgscarl.com/Search&Prod_Name=SAMS#](http://search.janes.com/lumen.cgscarl.com/Search&Prod_Name=SAMS#) (accessed November 16, 2009).

⁵⁶ Personal correspondence with USAF Lt Col Michael Pietrucha, Air Combat Command, Irregular Warfare Operations Officer Joint Integration Division, 01 February, 2010.

⁵⁷ Interview with Colombian Army Lt Col Juan Correa, 13 November, 2009.

Geographically, Colombia is a country with over 1 million square kilometers of land area (about twice the size of Texas).⁵⁸ The country shares over 6,000 kilometers of border with five neighboring states. Recent news reports show that Ecuador and Venezuela provide more tension than the other three. Colombia also has over 3,000 km of coastline that challenge border control. The terrain of Colombia ranges from coastal lowlands and thick jungle to remote plains and the high Andes Mountains. Aviation use is crucial in COIN to cover this challenging terrain.

Colombia's population exceeds 45 million people. The literacy rate is over ninety percent for both males and females and the life expectancy is about sixty-nine years for males and seventy-seven years for females. The Gross Domestic Product per capita has increased steadily to 8,900 US dollars in 2008. This places it at 109 of 229 on the world country list.⁵⁹ Although nearly fifty percent of the population lives below the poverty line, Colombian economic growth enables a tax base that supports defense investment.

Colombia has sacrificed as a nation in order to provide for their security. The country has recognized the need for stability and security in order to progress economically. To this end, Colombian political leadership instituted special tax procedures on the wealthiest individuals in order to fund the defense of Colombia.⁶⁰

The violence in FARC-controlled or contested areas produced a major displaced person problem. Estimates vary between 1.8 to 3.5 million Colombians were forced from

⁵⁸ Central Intelligence Agency, *CIA World Fact Book*, <https://www.cia.gov/library/publications/the-world-factbook/geos/co.html> (accessed August 12, 2009).

⁵⁹ Ibid.

⁶⁰ United States Department of State, *Colombia*, <http://www.state.gov/r/pa/ei/bgn/35754.htm#defense> (accessed March 3, 2010).

their homes seeking refuge from the violence. The borders are relatively porous for illegal activity, with the FARC ranging over international boundaries. Colombia is the world's leading coca producer, with US drug users as the primary consumer. This illicit economic relationship provides the majority of FARC funding.

Infrastructure includes nearly 1000 airports in the country including over 100 paved fields. Additionally, there are over 14,000 km of petroleum pipelines to transport resources to refineries and to market. Control of the territory is both a requirement for security and an enabler for continued economic growth.

Military Perspective

In order to gain an understanding of the Colombian struggle for security, the author interviewed a Colombian Army officer that has led operations against the FARC and a United States Air Force Colonel who served as the USAF Chief of Mission in Colombian from 2005 to 2008. In addition, the line of inquiry led to the current USAF chief of mission and numerous personnel currently executing the Foreign Internal Defense mission in Colombia. The interview questions are located in the appendix. All of these military members have extensive knowledge and experience in combating the FARC in Colombia.

Colombia utilizes a COIN strategy against the FARC designed to secure the population and infrastructure and to weaken the enemy through offensive operations.⁶¹

⁶¹ Freddy Padilla de Leon, "Beyond Victory: The Future of the Armed Forces of Colombia." *International Congress of Risks, Security and Defense in the XXIst Century*. (Bogota: ASOCACI, 2009), 9-10.

This mixture of security and force application has significantly reduced the number of active FARC members over the past ten years. Maintaining the momentum remains a challenge, however, as a loss of security for the population could lead to increased recruitment and coercion by the FARC, allowing them to increase their force and influence.

Airpower in the ground attack role contributes toward the Colombian military gaining the initiative. Before airpower could operate for extended periods of time and during hours of darkness, Colombian Army patrols were required to cease movement in the afternoon to establish a secure perimeter for the evening. This provided freedom of movement to FARC members. The tactics were also predictable. The Army patrols were often outside the range of artillery support, and the risk of contact without overwhelming firepower outweighed the benefit of keeping pressure on the FARC.

Since Colombia acquired or upgraded aircraft such as the UH-60A Halcon, AC-47T Fantasma, and A-29 Super Tucano, night operations are the normal mode of offensive efforts. Lt Col Correa of the Colombian Army was emphatic on the importance of these aircraft in conducting night operations beyond the range of Army artillery: –You know they [the Colombian Air Force] are going to be there.” This airpower lethality combined with extensive loiter has truly given the initiative to the military. When asked which aircraft was the favorite of the soldier, Lt Col Correa responded that the Arpia (AH-60 helicopter with rocket and gun capability) was the most effective in support of ground operations. The reason for this was the capability to employ weapons in close proximity to friendly forces. While not all fights occur in the jungle, Colombian terrain challenges visibility and adds to the fog and friction of war. The precise support of the

helicopter along with the extended loiter time over past helicopter variants is welcomed by the Colombian Army.

The second choice of the Colombian soldier for air support during COIN operations was the AC-47T gunship. This aircraft also provides extensive loiter and firepower. Drawbacks are left turn constraints for ordnance delivery and lack of surprise during daylight hours. The best combination of these assets for COIN Close Air Support is to have the gunship airborne with the helicopters on call for a quick response to ongoing operations and no gaps in air coverage in support of ground movement.⁶²

Finally, the Colombian Army soldier regards the OA-37 Dragonfly and A-29 Super Tucano as fine aircraft to support some ground operations. The ability to work jointly and employ effective Close Air Support in dynamic situations, however, remained a concern. The recognized need for effective CAS drove the recent development efforts for two Joint Close Air Support schools in Colombia.⁶³ The United States' partnership in developing these schools and training program offer a promising template for future missions.

Afghan strategists should pay particular attention to the next paragraphs. An interview with Col Carl Hunter, former United States Air Force Mission Chief in Colombia from 2005 through 2008 and current 12th Air Force Chief of Staff uncovered a wealth of information on innovative approaches to increase the close air support

⁶² Interview with Colombian Army Lt Col Juan Correa, 13 November, 2009.

⁶³ Personal correspondence with USAF Lt Col Michael Pietrucha, Air Combat Command, Irregular Warfare Operations Officer Joint Integration Division, 01 February, 2010.

capability of a key ally in efforts against terror and drugs in the Western Hemisphere.⁶⁴

Over three years Col Hunter doggedly worked both United States Government agencies for technology improvements and training as well as the Colombian Air Force for cultural changes toward the use of airpower. Three main applications to Afghanistan became evident during the course of the interview: training and personal trust influenced formal and informal development of the COLAF; lessons codified into formal documents require years of effort, but provide longevity to COLAF institutional learning; US technology such as Night Vision Goggles (NVG) and Global Positioning System aided munitions increased the effectiveness of the COLAF.

The personal relationship with CAS experts enabled trust to develop between United States Air Force and Colombian Air Force personnel. Col Hunter brought down the same A-10 reservists with Spanish language skills on several occasions to observe and influence the COLAF. In addition, English-speaking COLAF personnel attended the Joint Firepower course at Nellis Air Force Base and brought back not only knowledge, but also the motivation to see increased CAS capability developed in the COLAF. The relationships eventually enabled the transition from a rank centric brief, execution, and debrief process to a performance and position based system. The trust and demonstrated capability of the Super Tucano on the range using USAF techniques generated significant motivation to increase COLAF performance as well. The USAF representatives possessed not only flying, knowledge and language skill, but also a personality matched

⁶⁴ Phone interview with USAF Col Carl Hunter, 12 AF Chief of Staff, 22 February, 2010. Col Hunter is available by e-mail at carl.hunter@dm.af.mil or commercial (520) 228-3751 through June 2010 and happy to discuss any lessons learned for the ANAAC from his experience in Colombia.

to informal influence of a large organization. The A-10 pilots did not say “the USAF way or else” but rather assessed which USAF tactics and techniques worked for the COLAF, which required modification for the local geography and airframe capability, and which were not applicable. Recording these efforts in formalized doctrine, although close, continues to elude the COLAF.⁶⁵

The results of these efforts were tactics and procedures suitable for the COLAF, with training based on a proven USAF product for the Colombian joint force. The USAF instructors remained in country to observe and mentor the first course. The first class was a joint student body of Colombian Air Force and Army personnel, twenty in total. The training program consisted of morning classroom work with afternoon and night live-fire training. The total infrastructure investment for the two CAS schools was less than a million dollars. This included purchase of robust simulators for both schools for ground personnel to call in airstrikes in the classroom before proceeding to the range. The first simulator is scheduled for fully operational status in May 2010.⁶⁶

Finally, Col Hunter worked diligently to ensure the COLAF had attack capability through the triple canopy jungle cover, day or night, where laser guidance is often a challenge. In order to accomplish this Col Hunter continued support of the COLAF Night Vision Goggle program. A proven record of COLAF NVG accountability made the case easier for Col Hunter to recommend continued support of this program. A huge increase of COLAF capability was the procurement of Enhanced Paveway II bomb guidance

⁶⁵ Personal correspondence with Lt Col Chuck Gerstenecker, USAF, current Chief of Air Force Mission, Colombia. 14 March, 2010.

⁶⁶ Ibid.

units. The procurement of 150 guidance kits with GPS precision increased COLAF effectiveness in challenging terrain. The price tag for this capability approached \$3M for both the kits and aircraft modification required to support the weapon delivery. The benefits clearly outweigh the costs. The capability quickly resulted in combat success against the FARC.

The fast moving Mirage V and KFir were useful to cover Colombian Army insertion operations through time coordinated, preplanned targets. These aircraft provide a distraction to allow ground forces to move into place. The quick response times from these fast movers are positive characteristics but the aging higher technology systems are not as dependable as other Colombian airframes.

Integration of airpower with ground forces follows two tracks. The Special Forces branch of the Colombian Army has the priority of air support in the FARC fight. Special Forces use airpower for preparation of the operations area, insertion and extraction, and fire support during conduct of the operation. Conventional Army forces do not work as closely with the Air Force. This is due in part to limited airpower resources as well as the difficulties of coordination between the services. Division and brigade level operations can request support from the Air Force. Upon receipt of air support requests, the Colombian Air Force analyzes the mission and responds with their proposed plan to support the operation. Often the need for surprise outweighs the benefit of forward deployment of airpower close to the fight. These coordination procedures fall somewhat short of the goals laid out in doctrine and theory.

Colombia utilizes strike aircraft to reduce sanctuary and resupply of the FARC. The COLAF conducted a strike just over the border with Ecuador during Operation

FENIX. This strike killed Raul Reyes, a top FARC official.⁶⁷ Evidence collected after the strike indicated support for the FARC originating in Venezuela and Ecuador. The government of Brazil differs from Colombia in many respects; the vast and dense jungle area on the border between these two countries, however, reduces potential support to the FARC. Peru and Panama have relatively small border areas and perhaps less ideologically opposed governments.

Collateral damage is a critical concern for the COLAF. Recently, the Colombian courts sentenced two pilots for a 1998 bombing event. The allegation was that a cluster bomb attack in a village resulted in seventeen dead, including six children. The perspective of the Colombian military and the judgment issued from the Colombian legal system differ. The FARC is using this seam between the branches of government.⁶⁸ “Judicial Warfare” is a new twist in the Colombian FARC conflict. It is possible that the FARC influences the judicial system through a combination of bribes and threats. In addition to the illegal influence, the FARC claims legitimacy as the military arm of an ideological movement pushing for communism in Colombia. This ideology appeals to some judges. The tension between the judicial and military institutions in Colombia could produce negative consequences for the security of the population. This particular case will likely proceed to the Colombian Supreme Court. The aircrew are back in prison after enjoying relative freedom during the lengthy legal proceedings. The result of the decision will undoubtedly affect military operations in the future. In response to the controversy,

⁶⁷ Padilla de Leon, ”Beyond Victory,” 7.

⁶⁸ Interview with Colombian Army Lt Col Juan Correa, 13 November, 2009.

the Colombian Air Force website includes news stories on their support of human rights standards.⁶⁹

Executing strike operations within your own borders is difficult for any military. The vast majority of Colombian bombs and bullets land on Colombian soil and primarily kill Colombians, even if they are FARC members. Colombian armed forces are aware of this fact and are very careful about the selection of targets in the prosecution of offensive operations against the FARC. Military and civilian leadership hold engagement authority at the highest levels. This control of planning and execution ensures judicious use of military force. However, it also inhibits the response options and flexibility of forces in the field.

The United States recognizes the Colombian Air Force as documenting air strikes extremely well. In addition to post-strike battle damage assessment, this is a Colombian government effort to maintain transparency in their operations. This gains credibility with the population they protect. In addition, the assessments and evidence counter FARC charges that the Colombian military intentionally targets civilians.

Recruitment and training are key considerations for fielding an effective fighting force. Colombia has a strong military tradition. The military forces have an academy system similar to the United States, with separate army, air force, and navy educational institutions. The professional military education system is service specific at the junior level and joint at the field grade level and above. The commanding general of the

⁶⁹ Colombian Air Force Website, Accessed 22 March, 2010:
<http://www.fac.mil.co/index.php?idcategoria=8512>.

Colombian Military Forces recognizes the importance of education even in the midst of a protracted COIN effort.⁷⁰ The international community recognizes Colombian officers for their professional dedication and intellectual achievement. The Colombian pay and benefit system mirrors that of the United States in many respects. The military profession is an honorable pursuit in Colombia.

Before President Uribe, the Colombian government allowed the FARC sanctuary and control of territory within Colombian borders in an effort to reduce the violence. The political negotiations were ill advised and ineffective. The Colombian government has largely persevered in combating the insurgent threat. The long-term support of the United States to varying degrees has aided Colombia over the past forty years. The commitment of the United States toward developing and protecting sustainable democracies in the region has paid off in Colombia.

Recently the government of Colombia formally granted United States use of facilities on Colombian bases to support efforts against the illegal narcotics and the FARC.⁷¹ The neighboring governments of Venezuela and Ecuador rattled cantankerous rhetoric about the impending invasion of the United States, but the vast majority of Colombians view the agreement as increasing security and stability for Colombian citizens. Support with legitimacy is a prime consideration for United States Foreign Internal Defense.

⁷⁰ Padilla de Leon, "Beyond Victory," 14-15.

⁷¹ *The Economist*. Bazookas and Bases. August 8, 2009: 32.

To summarize the experience of United States Foreign Internal Defense efforts in Colombia, there are several aspects for consideration to take forward into Afghanistan. It takes a long time to build an air force. The United States has provided various degrees of aid to Colombia for over forty years. Airpower is expensive. The Colombian government prioritizes military spending to match the threat posed by the FARC. The focus of recent acquisitions for the Colombian Air Force is on COIN; even though a strategic threat from Venezuela is mounting, the Colombians recognize the insurgency as their most pressing threat. The United States Air Force Chief of Mission in Colombia from 2005 through 2008, Col Hunter, leveraged relationships in order to influence the development of Close Air Support capability. The length of his tour allowed these relationships and trust to develop. The A-10 reservists with the knowledge, personality and language skills greatly facilitated this influence. The Colombians themselves used their bilingual language skills and knowledge to improve capabilities of the force. Transparency efforts for COLAF action are evident from the top down. Human rights and collateral damage are a concern and acknowledged across the force. Even with the long tours and relationships between USAF and COLAF personnel, COLAF doctrine has not been formalized. Col Hunter's successor has spent two years encouraging the formalization of doctrine. Continuity, patience and persistence are keys to effective Foreign Internal Defense. Colombian military recruiting and training contributes toward maintenance of a capable and intelligent officer corps. The Colombian military career competes with the economic sector for prestige, pay and benefits. The political leadership of Colombia provides the vision and means to combat the FARC. Even with all of these factors in support of a

successful Colombian Air Force, there are gaps that the United States covers in order to help Colombia meet the combined security objectives of the two nations.

Afghan National Army Air Corps (ANAAC)

With the 2009 change in US presidential leadership, the highest political levels reviewed US interests in a stable Government of the Islamic Republic of Afghanistan (GIRoA). President Obama is committed to disrupt, dismantle and defeat threats to the United States originating from Afghanistan. Afghanistan now qualifies as the longest war the United States has undertaken. Public support for the war has a time limit. As the home base for the terrorist attacks of September 11, 2001, Afghanistan was a sanctuary for terror that the United States ignored for too long. Now, however, the long-term commitment toward establishing a viable government capable of providing a secure environment for legal and ethical trade and resource extraction seems unpalatable to many Americans. Regardless of the wisdom of the decision to build a nation versus punish a bad actor in the opening months and years of Operation ENDURING FREEDOM, the commitment to Afghanistan now sends an important signal to terrorists the world over. A retreat without stability in Afghanistan would teach a strategic lesson to al Qaeda and other terror groups.⁷² Retreat without victory would encourage and revitalize the insurgent and terror groups operating in and around Afghanistan. Perhaps an effective Afghan National Army Air Corps (ANAAC) will give the GIRoA the edge it requires to take and maintain the initiative from the nefarious forces that seek the exit of the United States.

⁷² Robert A. Pape, *Dying to Win* (New York: Random House Trade Paperbacks, 2006), 28.

Afghan Context

Afghanistan is about the size of Texas with over 650,000 square km of land area.⁷³ Much of the terrain is mountainous, with nearly half of the country above 6,000 feet, many mountain peaks (and some passes) above 14,000 feet, and heights over 20,000 feet in the sparsely populated region of the northeast.⁷⁴ Lower-lying deserts subject to ferocious dust storms cover much of the southwest. Afghanistan shares over 5,500 km of border with six neighboring countries. Border control is historically poor with Taliban and al-Qaeda able to operate on both sides of the border with Pakistan. This is due in part to the ethnic and religious ties of people across the international boundaries.

Population estimates for Afghanistan vary but center around 30 million people. Taliban and al Qaeda fighters in the regions are estimated to number as many as 25,000, although it is difficult to determine exact numbers.⁷⁵ The life expectancy for both males and females is just under forty-five years. Afghanistan has a low literacy rate with less than half of males able to read and just over one tenth of females literate. The economy is in shambles after decades of war. An Afghan diaspora escaped the years of conflict. Some Afghans took the traditional refugee camp form of displaced person. Others were wealthy enough to start new lives in countries such as the United States. The Afghan government is currently dependent on external aid to provide even basic services and security for the population. The GDP per capita is extremely low at 700 US dollars.

⁷³ Central Intelligence Agency, *CIA World Fact Book*.

⁷⁴ Peter R. Blood, "Afghanistan, A Country Study," 2001.
<http://countrystudies.us/afghanistan/32.htm> (accessed November 20, 2009).

⁷⁵ *The Economist*. Afghanistan: From Insurgency to Insurrection. August 20, 2009.
http://www.economist.com/displaystory.cfm?story_id=14265001 (accessed November 18, 2009).

Afghanistan is the world's largest producer of opium products with the majority of European and Asian drug users providing funds back to the Taliban and other illegal groups operating in Afghanistan.

There is limited infrastructure in Afghanistan. The ring road is improving commercial flow and the movement of goods and services within the country. Afghanistan has a limited gas pipeline system of less than 500 km. There is continued interest in building pipelines through Afghanistan to transport Central Caucasus petroleum products to the energy hungry markets of India and China. In addition, there are gas and oil reserves in Afghanistan that have been untapped due to conflict, as well as the second largest copper deposit in the world, for which China recently purchased the mining rights.⁷⁶ Security is the missing piece of this development.

Afghan Military Perspective

The ANAAC recently completed the first round of training in helicopter gunships (Mi-35 attack helicopters, scheduled for retirement) after a lengthy hiatus dating back to the Russian occupation.⁷⁷ The efforts to establish a viable ANAAC are behind the timeline of Afghan National Army efforts to secure Afghanistan. There is much in the works to correct the shortcomings of the ANAAC and enable an effective airpower COIN contribution.

⁷⁶ Briefing from the University of Omaha Center for Afghan Studies, November 5, 2009

⁷⁷ C.J. Radin, "Afghan National Army Air Corp (AN AAC) Order of Battle Update." *The Long War Journal*. August 24, 2009. http://www.longwarjournal.org/archives/2009/08/afghan_national_army_2.php (accessed November 16, 2009).

Airpower historically provided initiative to the government forces in Afghanistan. The difficult terrain and lack of adequate infrastructure in roads and rail makes airpower a key enabler in securing the population.

Integration of the ANAAC with ground forces is on the correct track. The naming convention of the air arm as the –Army Air Corps” grounds it in a supporting role to the Army. The proposed force structure (outlined later in this paper) with the large number of helicopter assets also indicates that the focus provides initiative for ground forces. The ground centric focus in a COIN struggle is the correct approach based on the theory, doctrine and practical experience as demonstrated in Colombia.

Sanctuary and resupply for insurgent forces in Afghanistan are of particular concern. Cited earlier, but worth repeating, Jeffrey Record found that, –External assistance is a common enabler of victorious insurgent wars...”⁷⁸ The border regions are porous and many groups outside of Afghanistan have taken an interest as to the internal situation of the country. The United States was quite effective at supplying insurgent forces in Afghanistan from the Pakistan side of the border during the Soviet occupation.⁷⁹ Ideological groups opposed to United States interests now use the same routes to support the Taliban and al Qaeda in their fight against the Government of the Islamic Republic of Afghanistan.⁸⁰ Fortunately, the neighboring state of Pakistan currently allows air operations by the United States from within and over its territory in the pursuit of

⁷⁸ Record, *Beating Goliath*, 133.

⁷⁹ Steve Coll, *Ghost Wars: The Secret History of the CIA, Afghanistan and bin Laden, from the Soviet Invasion to September 10, 2001* (New York: Penguin Group (USA) Inc., 2004), 53.

⁸⁰ Ibid., 548.

terrorists. The “Other Roles” in the Combined Airpower Transition Force propose four Intelligence, Surveillance and Reconnaissance (ISR) platforms in addition to fourteen Attack/ISR type aircraft. The mobility afforded ground forces through the helicopter lift contributes toward quick responses and denial of sanctuary in the border region.

Collateral damage is of vital concern for the International Security Assistance Force (ISAF). Collateral damage remains an important consideration as the ANAAC conducts strike operations. Afghanistan has a long history of using airpower to target Afghans. Sir Martin Ewans recounts in *Afghanistan, a Short History of Its People and Politics* that Amanullah used two aircraft in 1924 to attack Afghans during efforts to put down the Mangal and Jaji tribal uprising in the Khost region.⁸¹ Nadir Shah in 1930 was quite brutal in general and used airpower to put down Afghans in Kohistan.⁸² After the relatively peaceful “golden age” of Afghanistan, a coup resulted in Afghan airpower attacking the royal palace and Daud’s family in 1978.⁸³ In March of 1979, the Afghan government pounded Herat from the air and killed an estimated 20,000 Afghans.⁸⁴ Under the Soviet occupation, Soviet and Afghan forces wielded airpower in efforts to eliminate sanctuary for those opposed to the communist government.⁸⁵ These forces routinely wiped out villages in efforts to isolate the Mujahidin. Moving to the 1990s there were several air forces in the power vacuum resulting from Soviet withdrawal. The Taliban

⁸¹ Sir Martin Ewans, *Afghanistan: A Short History of Its People and Politics* (New York: Harper Collins, 2002), 129-130.

⁸² Ibid., 139.

⁸³ Ibid., 188.

⁸⁴ Ibid., 197.

⁸⁵ Ibid., 221-222.

bombed Kabul in 1995 and Mazar in 1998, killing many Afghans.⁸⁶ Afghans for generations have endured death from above operated by both domestic and foreign entities.

The International Security Assistance Force Commander, General McChrystal, shifted the Afghan strategy from a focus on killing insurgents to one that seeks to protect the population. The International Security Assistance Force Rules of Engagement constrains the flexibility of ground force and employment of air-based weapons. The highest military leadership level scrutinizes every decision to use airpower. According to General McChrystal, “Airpower contains the seeds of our own destruction.”⁸⁷ Theory and doctrine also urge caution in order to protect the population. As the ANAAC gains lethal capability, care and transparency about collateral damage is paramount. The past 100 years of Afghan airpower demonstrate the historically tenuous control of this force. The ANAAC must thoroughly document attacks and respond to political inquiry in order to be accountable to the public and increase GIRoA legitimacy. Afghan weapons require precision. This precision results from both technologically advanced weapons in addition to effective training of personnel.

The command and control of airstrikes performed by the ANAAC continues to challenge strategists. The United States Air Force increased in-theater representation for command and control elements into Afghanistan. The purpose was to both increase the

⁸⁶ Ewans, *Afghanistan*, 258.

⁸⁷ Dexter Filkins, “Stanley McChrystal’s Long War” *NY Times*, October 14, 2009. <http://www.nytimes.com/2009/10/18/magazine/18Afghanistan-t.html?pagewanted=13> (accessed November 16, 2009).

coordination with ISAF ground efforts, as well as provide mentorship of Afghan command and control.⁸⁸ Pairing the ANAAC to the ground commander will most likely keep the nomination and selection of targets at the Army level. Although flexibility is important, it is also important to maintain maximum transparency to protect the population.

Once forces are in the field and responding to enemy action, disciplined coordination for air support of ground operations is required. The Afghan National Army and ANAAC graduated the first seven “Forward Observer” Afghan personnel to request real-time air support and direct airpower to the threat. The recent graduates have already put their knowledge and skill to combat use in support of Afghan National Army ground movement. This Forward Observer skill is a key enabler for Afghan National Army initiative.⁸⁹

Recruitment and training of professional airmen is critical for a successful ANAAC. The Afghanistan Military Academy graduated its first class of eighty-four officers in 2009. The ANAAC received twenty of those officers. Two hundred and twelve from the second class graduated in January, 2010. According to Afghans at the University of Nebraska Omaha, Center for Afghan Studies, the Afghan Military Academy is not getting the very best Afghanistan has to offer.⁹⁰ There are many reasons

⁸⁸ Zachary Wilson, "Airmen train Afghan officers on command, control." *U.S. Air Force* April 2, 2009. <http://www.af.mil/news/story.asp?id=123133898> (accessed November 20, 2009).

⁸⁹ Personal Correspondence with Major Paul Birch, USAF, Combined Security Transition Command-Afghanistan, 05 February, 2010.

⁹⁰ Briefings and Discussions with SAMS Seminar 5 at University of Nebraska Omaha, Center for Afghan Studies, 2-5 November, 2009.

for this, including an uncertain future military force structure, pay difficulties and perhaps even tribal loyalties or ethnic affiliation. Perhaps the biggest concern for young Afghans is the earning potential after military service versus a civilian education at home or overseas.⁹¹ There are many American mentors at the Afghan Military Academy attempting to improve the quality of the product commissioned into service for the defense of Afghanistan.

Decades of war have stressed the capability of Afghanistan to produce adequately trained military personnel to fly demanding COIN missions. The Soviets trained many ANAAC pilots during the occupation era. The average age of the ANAAC pilot is nearly forty-five years,⁹² not an encouraging statistic given the forty-five year average life expectancy. Recruitment and training of younger aviators is underway. There is a tension between the older, Soviet trained pilots and the need to recruit and train younger, more flexible pilots to support the Government of the Islamic Republic of Afghanistan.

The United States originally planned to train fifty Afghan pilots a year.⁹³ Actual throughput of fifty, however, is well beyond the capability of the United States and partners until at least 2018.⁹⁴ To date, only one Afghan pilot has completed out-of-country training.

⁹¹ University of Nebraska Omaha, Center for Afghan Studies, 2-5 November, 2009.

⁹² Personal Correspondence with Major Paul Birch, USAF, Combined Security Transition Command-Afghanistan, 15 October, 2009.

⁹³ Radin, "AN AAC Order of Battle Update."

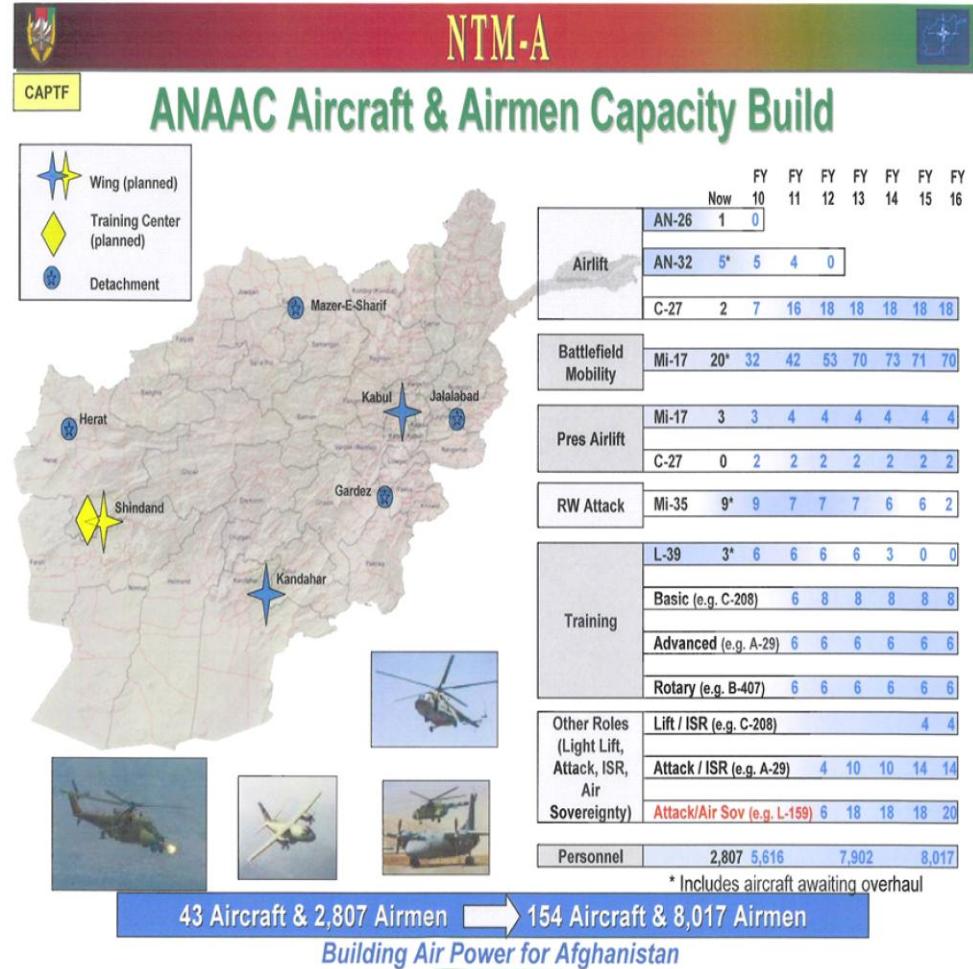
⁹⁴ Interview with USAF Lt Col Michael Pietrucha, Air Combat Command, Irregular Warfare Operations Officer Joint Integration Division, 02 February, 2010.

Popular support of the military is another consideration for the ANAAC perspective. The political leadership, especially President Karzai, has been critical of ISAF airstrikes causing collateral damage. General McChrystal has given priority to protecting the Afghan population versus killing the insurgent when there is a conflict between the two objectives.⁹⁵ The Afghan people have lived in conflict for the majority of their lives. The perception of the outsider killing innocent Afghans risks losing the support of the population to resist the Taliban.

The extremely low GDP is a final concern for the long-term viability of the ANAAC. Airpower is expensive, and the Afghan Government will be dependent on foreign aid for decades. Currently, Afghanistan provides \$300M of a \$10B defense budget. The requirement to provide long-term airpower effects within realistic budget requirements is a key consideration. Maintainability, logistics and operations cost are all-important considerations for the ANAAC force structure. Cost is partly why the numbers of aircraft are relatively low for a force fighting up to 25,000 insurgents. With the success of the ISAF mission, the number of insurgents should be much lower and maintenance of the peace achievable with the relatively small air force.

⁹⁵ General Stanley McChrystal, International Security Assistance Force Media Interview March 2, 2010. Retrieved March 3, 2010 from: <http://www.youtube.com/watch?v=Sqlad9NkTJw>.

Afghanistan National Army Air Corps Aircraft Build Plan



As of 16 Nov 09

UNCLASSIFIED

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Source: CAPTF Pre-Decisional ANAAC Brief (personal correspondence)

The summary slide from the pre-decisional plan from the North Atlantic Treaty Organization Training Mission – Afghanistan (NTM-A)/Combined Security Transition Command – Afghanistan (CSTC-A), Combined Airpower Transition Force (CAPTF) strategy division shows the proposed force structure for the ANAAC. The proposal includes both rotary and fixed wing assets to conduct a variety of air operations. The ANAAC build plan includes fifty-four Mi-17. Twenty of these are to be Mi-17v5. The

Mi-17v5 is a dual role helicopter for both the movement of ground troops as well as gun and rocket pod capability to support those forces. There are political consequences to the procurement of Russian manufactured weapon systems. In addition, the precision of the Russian rocket pods is questionable when compared to United States manufactured rocket capability.⁹⁶ There are also cultural consequences for the population conditioned to view Russian aircraft as part of an occupying force. While unable to go anywhere, anytime in Afghanistan, the large engines and increased altitude capability over similar United States manufactured products make these aircraft a good choice for the ANAAC. This helicopter, properly equipped with armament and trained aircrew, will greatly increase the effectiveness and initiative of the Afghan National Army. For the fixed wing side, the ANAAC structure contained provisions for fourteen –Attack/ISR” aircraft such as the Super Tucano and twenty –Attack/Air Sovereignty” aircraft such as the L-159 jet aircraft.⁹⁷

Analysis

Context Similarities

There are many similarities between Colombia and Afghanistan. The remote areas of the country, challenging terrain and limited infrastructure to support ground operations offer striking similarities. Colombia is about twice the size of Afghanistan but both are coverable by thoughtful basing locations for airpower to support ground operations. The

⁹⁶ Key Publishing Ltd Aviation Forums. Advanced Precision Kill Weapon System. Retrieved 02 February, 2010 from: <http://forum.keypublishing.co.uk/showthread.php?t=44890>.

⁹⁷ Personal Correspondence with Major Paul Birch, USAF, Combined Security Transition Command-Afghanistan, 15 October, 2009.

border areas are a challenge to control for both countries. Outside actors, seeking to influence internal politics and dynamics, can gain access through these borders to conduct illegal activities.

Narco-terrorists embodied in the FARC and the Taliban/al Qaeda also control or are present in large areas of both countries. These groups caused, continued, or survived decades of violence in both regions. In addition, both groups rely significantly on illegal drug production and trafficking in order to finance their operations, payroll and power structure. The money gained from these illegal activities also assists the groups maintain power. The numbers of both of these groups have peaked in the tens of thousands from time to time, with far fewer insurgents thought to be currently active in Colombia now compared to Afghanistan and Pakistan.

Geography of both countries challenges effective land-based movement. The terrain challenges in Colombia are largely foliage based, while Afghans stripped the majority of its forests over the past decades for fuel and timber export. The altitude of the mountain peaks and passes in Afghanistan form natural borders and provide areas difficult to control. In Colombia, vast jungles provide challenges to governance and border control.

Context Differences

Differences between the two countries are also significant. While both countries have experienced decades of war, Afghanistan has played the role of pawn or buffer state in international politics for hundreds of years. The United States largely ignored Afghanistan, except during times when a proxy war against Russia was beneficial for the interests of the United States. Colombia, on the other hand, benefitted from a history of

support from the United States to resist Communism from taking root in the Western hemisphere. After the threat of Communism diminished with the end of the Cold War, the shift to counter-drug operations continued to aid the government of Colombia. Afghanistan had no such help from the last standing superpower.

The populations differ in economic potential. Afghanistan has an extremely low economic output and corresponding GDP. This lack of tax base makes the government of Afghanistan dependent on external aid for the forming and payroll of its defense forces. Colombia has received a large amount of external aid from the United States over the years, but historically the aid has been a small percentage of the overall defense budget. The defense forces and security are a priority for Colombia. Colombians actively seek to improve their own capabilities.

The illiteracy rate in Afghanistan is a challenge. The various Afghan ethnic and tribal affiliations and languages hamper the formation of a coherent force able to communicate plans and objectives. The Colombian population is better educated and more homogeneous in the composition of its military with identity in language and religion.

Lessons for the ANAAC Plan

Similar to Colombia, the long-term violence and festering of the Taliban insurgency is a significant challenge to overcome. As the United States was committed to Colombia to varying degrees over the past four decades in the pursuit of its interests in the region, Afghanistan will likely require significant input in resources and time to sustain a viable fighting force able to gain and maintain security. Even today, with Colombia making vast improvements in security over much of its territory, nearly one

third of the land area is subject to FARC operations and movement. Millions of Colombians remain displaced from their homes and are refugees within Colombia or in neighboring countries. This is after forty years of conflict. The Taliban presence will likely require a similar amount of time to overcome. Commitment and pressure are required to keep the influence of this group at an acceptable level to United States Government interests. The Government of the Islamic Republic of Afghanistan will be dependent on outside aid for many years.

The ANAAC plan focuses first on security of the population from internal threats through support of ground force efforts. This initiative for the Afghan government to protect the population from insurgent influence is an important step toward a viable sovereign state of Afghanistan. If the government provides security for the population, Afghans are more likely to openly support the Government of the Islamic Republic of Afghanistan and less likely to support or remain neutral toward the insurgent.

A professional military is a major hurdle to effective ANAAC implementation. Hands-on life experience provides valuable knowledge. There is a limit, however, to the amount of knowledge an individual gathers and implements from personal experience alone in one lifetime. The author of this paper did not stand with Galula in his battles and travels, but was able to learn valuable lessons by reading Galula's writings. In the same way, a modern air force must incorporate ideas from around the world in the COIN struggle. This requires an educated corps of air-minded leaders to transform the force into a thoughtful tool of violence for the defense of the country. The COLAF effort specifically to codify CAS capability and doctrine is approaching five years. Foreign Internal Defense requires tenacious mentorship over extended periods of time.

The focus on providing initiative to ground forces is evident in the proposed seventy Mi-17 aircraft. This large number of high-altitude aircraft helicopters is a significant COIN tool. The simplicity of the logistic train with a large number of the same type of aircraft located close to the spare parts and maintenance expertise of former Soviet Union countries is a potential benefit for this aircraft choice. NATO recently requested that Russia source the needed helicopters and spare parts directly, marking a significant turn in the NATO/Russia/Afghanistan relationship.

The training of the Afghan forces should improve basic skills to ensure survivability of the aircraft and aircrew. A nudge toward improved capabilities such as night insertion and direct support of ground operations is required after Afghan aviators acquire basic airmanship skill. This is a cultural issue as well as an issue of skill.⁹⁸ The training process will take time. The push to eliminate the sanctuary of darkness greatly aided the Colombian military in their efforts against the FARC. The COLAF utilizes United States Night Vision Goggles (NVGs) toward this end. Although export restrictions apply, a small number of these NVG devices in compatible aircraft will greatly increase ANAAC capability in the future. Afghan night capabilities will allow constant pressure on the Taliban, decreasing the insurgent effectiveness.

Precision is a great concern for the Afghan government. The proximity of the helicopter to the fight and the slow ground speed achievable has the potential to increase aircrew situational awareness and weapon employment precision. The rockets and guns do have employment and effectiveness limitations. There is a requirement for accurate

⁹⁸ Dalton Fury, *Kill Bin Laden*, (New York: St. Martin's Press, 2008), 121-122.

bombs as well. Laser Guided Bombs (LGB) dropped from fixed-wing ANAAC aircraft are the most promising technology available that fits within budget constraints. This capability allows a rapid response to border incursions as well as timely support for ground units unexpectedly encountering insurgent contact. The increased explosive yield of a 250 or 500-pound explosive bomb body over a rocket or gun would aid in destroying concealed or protected weapons caches in the mountains of Afghanistan, where a direct hit is often required to achieve the desired destruction of the target. An even better option is an Enhanced Paveway II capability such as the COLAF recently obtained. The ingenuity of the USAF, COLAF, and civilian contractors to adapt existing aircraft for this capability is an amazing success story. The Global Positioning System (GPS) bomb capability allows one COLAF aircraft to drop four weapons with near simultaneous impact. The added surprise and simultaneous coverage deters insurgent massing in camps. Cost is the main detractor of GPS capability. Laser guidance packages are significantly less expensive. The added effectiveness and flexibility of combined GPS and laser bomb guidance makes the technology worth serious consideration. GPS weapons require technological support from the United States for the long-term. This requirement is both a stick and a carrot for control of the weapons in the ANAAC inventory.

This precision and attack capability is theoretically achievable from a gunship platform similar to the AC-27 —“Slinger.” The gunship option is absent from the ANAAC plan. The ANAAC has taken delivery of two C-27s already. The gunship provides both lethal effects as well as long loiter time to aid in gaining the initiative under cover of darkness. The AC-27 touts the ability to drop precision bombs in addition to the

traditional big gun. Intelligence and surveillance options in addition to the kinetic effects make the new generation gunship an attractive option for Afghanistan. In addition, the increased crew size aids in the transparency of ANAAC operations.

Light Attack/Armed Reconnaissance (LAAR) aircraft tied in with intelligence sources from the ground and continued US support from overhead sensors have the potential to deny sanctuary for Taliban and al Qaeda in Afghanistan. The Colombian model of cross border raids is a delicate diplomatic issue for how the ANAAC is armed. Afghan diplomacy and continued US pressure and assistance to Afghan border nations to root out insurgents remains the primary means of reducing cross border supply and sanctuary. Colombia effectively utilizes the Super Tucano (LAAR) in an air sovereignty role with assistance by US forces in the command and control system.

The L-159 proposed for use by the ANAAC for the air sovereignty mission contributes little to the security of Afghanistan. The air sovereignty mission holds the lowest priority for the Afghan military until the country is affluent enough to justify protection from foreign, conventional force invasion. In addition, the L-159 would be no match for the Iranian or Pakistani Air Forces. The L-159 may be able to defend against the aging air forces on the northern border, but the threat from this direction is currently low. Air sovereignty for Afghanistan is a status symbol mission and does not provide a useful security contribution. It would be better to wait twenty years and determine if Afghanistan can afford to purchase and sustain its own air sovereignty defenses, or if it is even required.

Colombia is currently unable to hold its neighbors at strategic risk, and in fact, Venezuelan air power poses a credible threat to Colombian sovereignty. Colombia has

older supersonic aircraft that have undergone upgrades to armament capability, but they pose no match on paper for the platform capabilities of Venezuelan airpower purchased from Russia in recent years. The continued external threat to Colombia contributes toward the willingness of the Colombian people to view the United States as a key ally. Colombia is much wealthier than Afghanistan, but the F-35 is beyond their economic capability. In a similar manner, Afghan alliances and diplomacy will play the key role for sovereign defense.

The outlook for the security focus of Afghanistan over the coming decades is an internal, ground-focused COIN struggle. The aircraft that provides the best support to ground operations is the priority acquisition effort. Doctrine and theory suggests this is a rugged, survivable, slow flying, high endurance and highly lethal aircraft. The Colombian soldier fighting the FARC agrees. The L-159 fails to meet these demanding COIN requirements.

Airpower aids in efficiency of defense resources. Airpower can quickly respond to insurgent movement and keep the insurgent on the run. The lack of Afghan infrastructure drives the high number of rotary wing assets to move forces rapidly into position to conduct offensive operations or respond to defensive situations and prevent outlying villages or posts from being over-run. The planned LAAR also provides the efficiency of resources to deliver lethal effects and persistence. Joint operations planning requires effort, but the strike options combined with the lift will increase the overall efficiency of the Afghan military.

Conclusions/Recommendations

There are valuable lessons from the United States assistance to Colombia directly transferable to Afghanistan. Analysis of doctrine, theory and the Colombian Air Force indicates the current ANAAC plan is a reasonable starting point.

Afghanistan's struggle with radical Islamic insurgents will exist long after the majority of US forces redeploy. The United States provided varying degrees of assistance and training to Colombia over the past forty years. In order to achieve United States security objectives in Afghanistan, such as lack of sanctuary to international terrorists and increased stability in a volatile political region, the US commitment to Afghanistan should span a similar amount of time.

It is important for strategists in Afghanistan to prioritize ANAAC capability requirements to balance current COIN capability requirements with long-term sustainment considerations. The ANAAC will not realistically be able to accomplish all airpower roles required to conduct COIN. The United States Government assigns personnel and equipment in Colombia to support the Colombian government efforts against insurgents and terrorists. Examples of United States Government support in Colombia include airspace control and intelligence collection. It is recommended that the strategist build US military assistance into the plan and use a building block approach to ANAAC formation. The ANAAC should gradually assume duties as the culture and economic capability allow. The strategist should consider where the ANAAC is unable to perform the mission on its own for the medium-term and cover that gap politically and militarily. Examples of these capabilities are command and control assistance for Afghan airspace as well as intelligence collection and sharing of space and cyber capability.

The addition of each aircraft type adds vast requirements in training for maintainers and operators as well as supply requirements. The tracking of spare parts challenges even a well-financed professional organization such as the USAF. The Colombian Air Force gathered a wide range of airpower over the past forty years from various sources. Colombia now faces a dilemma of excessive maintenance costs versus the cost of upgrading to more reliable and versatile aircraft. It is expensive to purchase new aircraft and technological capabilities, but it is also expensive to maintain and operate an excessively diverse and aging force.

The ANAAC focus on air mobility in C-27s and gaining the initiative through the substantial investment in helicopter lift and CAS in the Mi-17v5 capability matches this simple force structure recommendation. Afghan military and political leadership must understand the imperative for a lean and efficient force. Afghans must understand the capability required to fight internal threats versus one desired for appearances' sake.

Consider an ANAAC gunship option based on the C-27 airframe. For Colombian Army personnel, the gunship is second only to the close-in capability of attack helicopters. The gunship provides loiter time and firepower required to support ground operations. For the Afghans, the AC-27 "Stinger" could significantly increase offensive air coverage while minimally affecting the logistics train. The first C-27s are already operating in Afghanistan with joint ISAF/AN AAC aircrew. The addition of eight AC-27 aircraft utilizing the same spare parts and maintenance requirements would greatly

contribute to ANAAC effectiveness.⁹⁹ The multi-role mission of the AC-27 is also a key benefit for a cash-strapped country. The United States Special Operations Command touts the AC-27 as able to insert small teams of ground personnel and then support them with firepower on the next sortie. In addition to the big guns, the AC-27 drops precision guided bombs. It is theoretically possible to meet all ground attack missions through a Mi-17v5 and AC-27 mix with careful basing and “deployments” in support of ground operations.

The Light Attack/Armed Reconnaissance aircraft (LAAR) is arguably a wise investment for ANAAC capability, particularly if the gunship is not feasible. The Colombian Air Force Super Tucano experience is a potential model for the ANAAC. The efficient, rugged, survivable airframe with long loiter time and lethal/precise effects will aid efforts on the ground to maintain control and increase security. In addition, the speeds and altitudes at which the LAAR operates allow for the increased possibility of pilots detecting enemy positions through visual scan or on-board sensors. With enough training and cultural influence, Afghan pilot capability will eventually match the LAAR ability to fly over mountains in the weather and then descend into clear air in the valleys for attack. GPS weapons working jointly with the ANA may not even require aircraft descent below the weather to prosecute the attack against the insurgent. Improved Colombian joint training as well as culture shifts for Super Tucano employment were critical enablers to realizing the full potential of this aircraft. The range of the LAAR provides an

⁹⁹ Mark V. Schanz, "Stinger Will Fill Critical Need," *Air Force Magazine*, August 8, 2008. <http://www.airforcemagazine.com/DRArchive/Pages/2008/August%202008/August%202013%202008/StingerWillFillCriticalNeed.aspx> (accessed November 20, 2009).

opportunity for surprise attacks against insurgents, although the geographic separation of the ground and air components challenges effective planning.

Although the L-159 is comparable in initial cost to LAAR proposals, the long-term costs of adding an additional airframe type and pilot training requirements exceed the potential benefit of this platform. Once the Taliban and insurgent situation is well in hand and Afghanistan has developed an economic base capable of sustaining a modern military force on its own, then consideration for an air sovereignty platform is in order. Until then, the diversified logistics and maintenance costs do not justify the limited contribution to the COIN fight.

A better option than providing twenty L-159s to Afghanistan is to increase the LAAR numbers by twenty. This decision provides thirty-four LAAR for operations and six for advanced training. An increase in LAAR would allow three small operational squadrons of ten aircraft each plus four spares for maintenance requirements. These squadrons would then dedicate their training and support to geographic army commands. This basing arrangement would increase experience and knowledge in a unit at the lowest level, building relationships between the soldiers and airmen.

As important as the aircraft selection is the training of professional warriors to fill the ANAAC roster. Continued education and training efforts for all personnel are imperative. The core instructors of the Colombian CAS school were English speakers and graduates of the Joint Firepower course at Nellis Air Force Base, Nevada. The ability of ANAAC Afghan Military Academy graduates to communicate in English could contribute toward the goal of increased education and performance through completion of training in the United States. The author recommends continued emphasis for the

professional responsibility to wield airpower thoughtfully in support of ground operations. The ANAAC Forward Observer course is a good start. Consider continued growth of this institution and codification of the syllabus as well as the tactics and techniques in order to develop a learning ANAAC institution. A possible resource for this institution is found in the Colombian Close Air Support school lessons. Just as the Colombians led the effort CAS efforts with United States Department of Defense coaching, let the Afghans take the lead over time. Also as in Colombia verification of progress toward a self-sustaining, learning ANAAC institution takes time and persistence.

An “Afghan Hands” Close Air Support team is worth consideration. The shaping of the Colombian Air Force was based as much on relationships as technology. The USAF instructors were knowledgeable airpower professionals, possessing easy to work with personalities and language skills to communicate ideas and information to Colombian Air Force personnel. The combination of Close Air Support knowledge and influential personality traits were relatively easy to find in a USAF pool of Spanish speaking pilots. Dari or Pashtu, however, requires an investment up front in training the right people to develop professional mentor relationships with ANAAC personnel for the long-term. The USAF should choose the best and reward these personnel for signing on to this demanding mission for the long term.

In Colombia, military service is both honorable and economically competitive with the civilian sector. In order to improve the overall personnel quality, ANAAC pay and benefits should compete with civilian, insurgent and criminal livelihoods. This is the first step to improve recruiting the best into the military academy. A second aspect is to

continue developing the military academy through a demanding degree. The skills learned at the academy should transfer to the civilian sector, after an appropriate payback. As these newly minted lieutenants progress through the ranks, a professional military education system is required. These educational courses have the possibility to provide far-reaching consequences as the initial course of the ANAAC as an institution is charted and under way.

In summary, for a successful and sustainable ANAAC many years of international aid and training are required. The focus should be on recruiting the best people. Training should lead to ANAAC initiative in the field. Encourage institutionalized practices and ANAAC knowledge. With limited resources, capability requirements for COIN should be prioritized and the number of different ANAAC aircraft types minimized. If eighty percent of the ANAAC mission can be accomplished with two airframe types (Mi-17/v5 and C-27/AC-27) instead of three (LAAR) or four (L-159), then choose the reduced type plan. Consider using US or allied assets to cover the remaining gap for the short to medium term.

Realistically, however, even with a simplified force structure, the viability of the Afghanistan National Army Air Corps depends on a long-term commitment from the United States. This commitment includes periodic technology improvements and personnel training. Similar to Colombia, forty years is a realistic timeframe for USAF advisors to assist the Afghan National Army Air Corps meet US and Afghan security objectives. This assistance need not include massive deployments of USAF fighter squadrons, but rather specialized trainers with specific language skill and expertise that

will develop ANAAC capability now and continue improvements to counter an adaptive insurgent adversary.

APPENDIX

Interview Questions for Colombian Military Officers

Questions for COLAF COIN capability and Colombian perspective about United States Foreign Internal Defense efforts:

- Do strike airpower assets (Super Tucano, attack helicopters and gunships) contribute toward the security of Colombians and the rule of law in Colombia?
- Is the strategy for defeating the FARC understood at the squadron level? What is the strategy? Does the strategy incorporate most of the points in the introduction of this paper?
- How does the COLAF measure effectiveness in operations against the FARC? For instance, is it by a reduction in FARC attacks? The amount of area controlled by the government? A period of time without violence? Interdiction and disruption of supplies and leadership?
- Does airpower contribute toward controlling borders with Venezuela and Ecuador? Are there border issues with Brazil or Peru? Why or why not?
- How does airpower aid in gaining the initiative against the FARC?
- Do these aircraft integrate and operate routinely with ground forces?
- Is Collateral Damage an issue versus insurgents such as the FARC? Are you able to strike targets in villages? Is there a need to strike near population centers or do ground forces and police control?
- Who controls the target nomination and approval process?
- Colombia is known for a professional military officer corps. How are you recruited and maintained? Are there benefits such as education, pay, status in society that outweigh the private sector?
- How is the aircraft availability rate for combat missions? Are maintenance and supply systems adequate for operational requirements?
- How do Colombian citizens feel about United States assistance in Counter Drug operations?
- Do you personally know United States instructor pilots that you trust?
- What is the best aircraft for offensive COIN operations? Super Tucano? Helo attack? Halcon w/Teplas? AC-47T Gunship? Mirage V/Kfir?
- Are there capabilities that are required or would be useful to have for COIN operations on the Super Tucano that you do not have?
- Has the United States been helpful to you or your squadron through providing advice, equipment or training?
 - If so, what was the most helpful thing?

- Was there anything the United States did that harmed your unit's capabilities?
- Is there a flying exchange between the United States and Colombia?
- What three things would you tell US airmen helping stand up an Afghan "Super Tucano" squadron?
- Do you think that your squadron could or would like to train Afghans to fly COIN missions in a super Tucano type aircraft?

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